



OKEANOS EXPLORER

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STAR

IMO 6835114

TEAMWORK
SAFETY FIRST

FISHING

GENERAL NOTES

1. THE PURPOSE OF THIS DRAWING IS TO SHOW THE RELOCATION OF THE AFT MASTHEAD LIGHT AND TASK LIGHTS TO ACCOMODATE MODIFICATIONS TO THE MAIN MAST.
2. ABBREVIATIONS USED ON THIS DRAWING ARE IN ACCORDANCE WITH ASME Y14.38 AND AS FOLLOWS:
COLREGS – INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA 1972.
3. TASK LIGHTS ARE MOUNTED P/S ON THE FORWARD MAST PLATFORM TO ENABLE 360° VISIBILITY.
4. AFT MAST HEAD LIGHT IS PLACED BETWEEN TASK LIGHTS, AS ALLOWED IN '72 COLREGS: INTERNATIONAL RULES – ANNEX I 2(f)(ii).
5. PARTIAL TEXT OF COLREGS ANNEX I – POSITIONING AND TECHNICAL DETAILS OF LIGHTS AND SHAPES:
2. VERTICAL POSITIONING AND SPACING OF LIGHTS
 - (a) ON A POWER-DRIVEN VESSEL OF 20 METERS OR MORE IN LENGTH THE MASTHEAD LIGHTS SHALL BE PLACED AS FOLLOWS:
 - (i) THE FORWARD MASTHEAD LIGHT, OR IF ONLY ONE MASTHEAD LIGHT IS CARRIED, THEN THAT LIGHT, AT A HEIGHT ABOVE THE HULL OF NOT LESS THAN 6 METERS, AND, IF THE BREADTH OF THE VESSEL EXCEEDS 6 METERS, THEN AT A HEIGHT ABOVE THE HULL NOT LESS THAN SUCH BREADTH, SO HOWEVER THAT THE LIGHT NEED NOT BE PLACED AT A GREATER HEIGHT ABOVE THE HULL THAN 12 METERS;
 - (ii) WHEN TWO MASTHEAD LIGHTS ARE CARRIED THE AFTER ONE SHALL BE AT LEAST 4.5 METERS VERTICALLY HIGHER THAN THE FORWARD ONE.
 - (i) WHEN THE RULES PRESCRIBE TWO OR THREE LIGHTS TO BE CARRIED IN A VERTICAL LINE, THEY SHALL BE SPACED AS FOLLOWS:
 - (i) ON A VESSEL OF 20 METERS IN LENGTH OR MORE SUCH LIGHTS SHALL BE SPACED NOT LESS THAN 2 METERS APART, AND THE LOWEST OF THESE LIGHTS SHALL, EXCEPT WHERE A TOWING LIGHT IS REQUIRED, BE PLACED AT A HEIGHT OF NOT LESS THAN 4 METERS ABOVE THE HULL;
 - (iii) WHEN THREE LIGHTS ARE CARRIED THEY SHALL BE EQUALLY SPACED.
3. HORIZONTAL POSITIONING AND SPACING OF LIGHTS
 - (a) WHEN TWO MASTHEAD LIGHTS ARE PRESCRIBED FOR A POWER-DRIVEN VESSEL, THE HORIZONTAL DISTANCE BETWEEN THEM SHALL NOT BE LESS THAN ONE HALF OF THE LENGTH OF THE VESSEL BUT NEED NOT BE MORE THAN 100 METERS. THE FORWARD LIGHT SHALL BE PLACED NOT MORE THAN ONE QUARTER OF THE LENGTH OF THE VESSEL FROM THE STEM.
 - (b) ON A POWER-DRIVEN VESSEL OF 20 METERS OR MORE IN LENGTH THE SIDELIGHTS SHALL NOT BE PLACED IN FRONT OF THE FORWARD MASTHEAD LIGHTS. THEY SHALL BE PLACED AT OR NEAR THE SIDE OF THE VESSEL.
 - (c) WHEN THE LIGHTS PRESCRIBED IN RULE 27(b)(i) OR RULE 28 ARE PLACED VERTICALLY BETWEEN THE FORWARD MASTHEAD LIGHT(S) AND THE AFTER MASTHEAD LIGHT(S) THESE ALL-ROUND LIGHTS SHALL BE PLACED AT A HORIZONTAL DISTANCE OF NOT LESS THAN 2 METERS FROM THE FORE AND AFT CENTERLINE OF THE VESSEL IN THE ATHWARTSHIP DIRECTION.
 - (d) WHEN ONLY ONE MASTHEAD LIGHT IS PRESCRIBED FOR A POWER-DRIVEN VESSEL, THIS LIGHT SHALL BE EXHIBITED FORWARD OF AMIDSHIPS; EXCEPT THAT A VESSEL OF LESS THAN 20 METERS IN LENGTH NEED NOT EXHIBIT THIS LIGHT FORWARD OF AMIDSHIPS BUT SHALL EXHIBIT IT AS FAR FORWARD AS IS PRACTICABLE.

9. HORIZONTAL SECTORS

- (b)
 - (i) ALL-ROUND LIGHTS SHALL BE SO LOCATED AS NOT TO BE OBSCURED BY MASTS, TOPMASTS OR STRUCTURES WITHIN ANGULAR SECTORS OF MORE THAN 6 DEGREES, EXCEPT ANCHOR LIGHTS PRESCRIBED IN RULE 30, WHICH NEED NOT BE PLACED AT AN IMPRACTICABLE HEIGHT ABOVE THE HULL.
 - (ii) IF IT IS IMPRACTICABLE TO COMPLY WITH PARAGRAPH (b)(i) OF THIS SECTION BY EXHIBITING ONLY ONE ALL-ROUND LIGHT, TWO ALL-ROUND LIGHTS SHALL BE USED SUITABLY POSITIONED OR SCREENED SO THAT THEY APPEAR, AS FAR AS PRACTICABLE, AS ONE LIGHT AT A DISTANCE OF ONE MILE.

REVISIONS

REV	SHT	ZONE	ITEM	DESCRIPTION	DATE	APPD

REFERENCES

NO	TITLE	DRAWING NO
1	FOREMAST ANTENNA PLATFORM	OE-170-101A
2	ANTENNA ARRANGEMENT, FOREMAST	OE-405-101
3	GENERAL ARRANGEMENT	OE-601-101C
4	NAVIGATION LIGHTS FOUNDATION	OE-422C-02

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
OFFICE OF MARINE AND AVIATION OPERATIONS

ART ANDERSON <small>ASSOCIATES</small> <small>200 PACIFIC AVE, BREMERTON, WA 98337-1032</small> <small>(360) 479-5600 FAX(360) 479-5605</small> <small>CONTRACT NO.</small> <small>AB133M-05-CQ-1044</small> <small>TAR NO.</small> <small>AAA-051(10)</small> <small>DSGN 03/22/10</small> <small>DWN 03/24/10</small> <small>CHK J. WALKER</small> <small>E. SNYDER</small> <small>CHK 03/26/10</small> <small>J. CARLSON</small> <small>03/26/10</small> <small>NOAA APPROVAL</small> <small>SIZE CAGE CODE NOAA DRAWING NUMBER</small> <small>D 0YLJ5 OE-422C-01</small> <small>REV -</small> <small>SCALE: AS SHOWN CAD FILENAME OE-422C-01.dwg SHT 1 OF 2</small>	NOAA SHIP <i>OKEANOS EXPLORER</i> <small>NAVIGATION LIGHTS</small> <small>ARRANGEMENT MOD</small>

PRELIMINARY
DATE: 03/26/10

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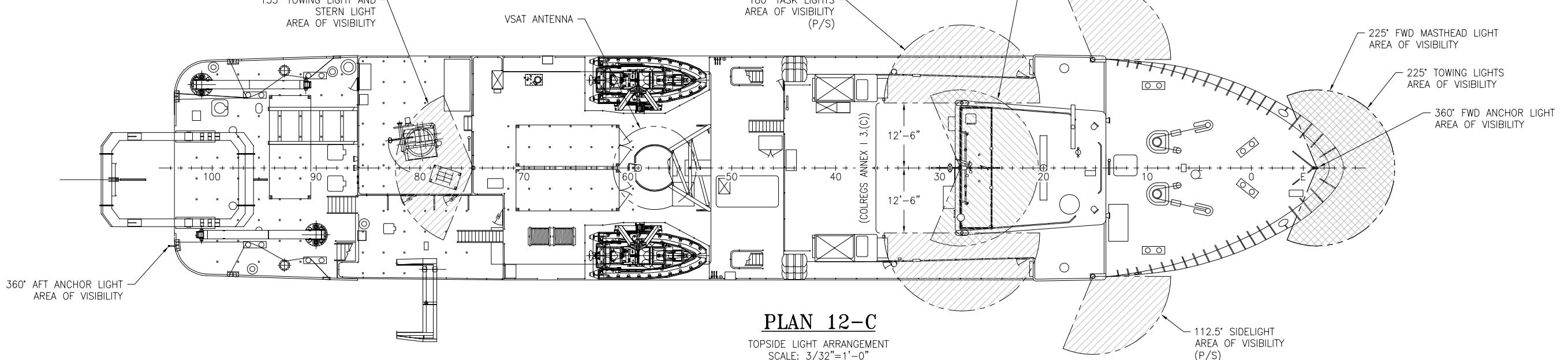
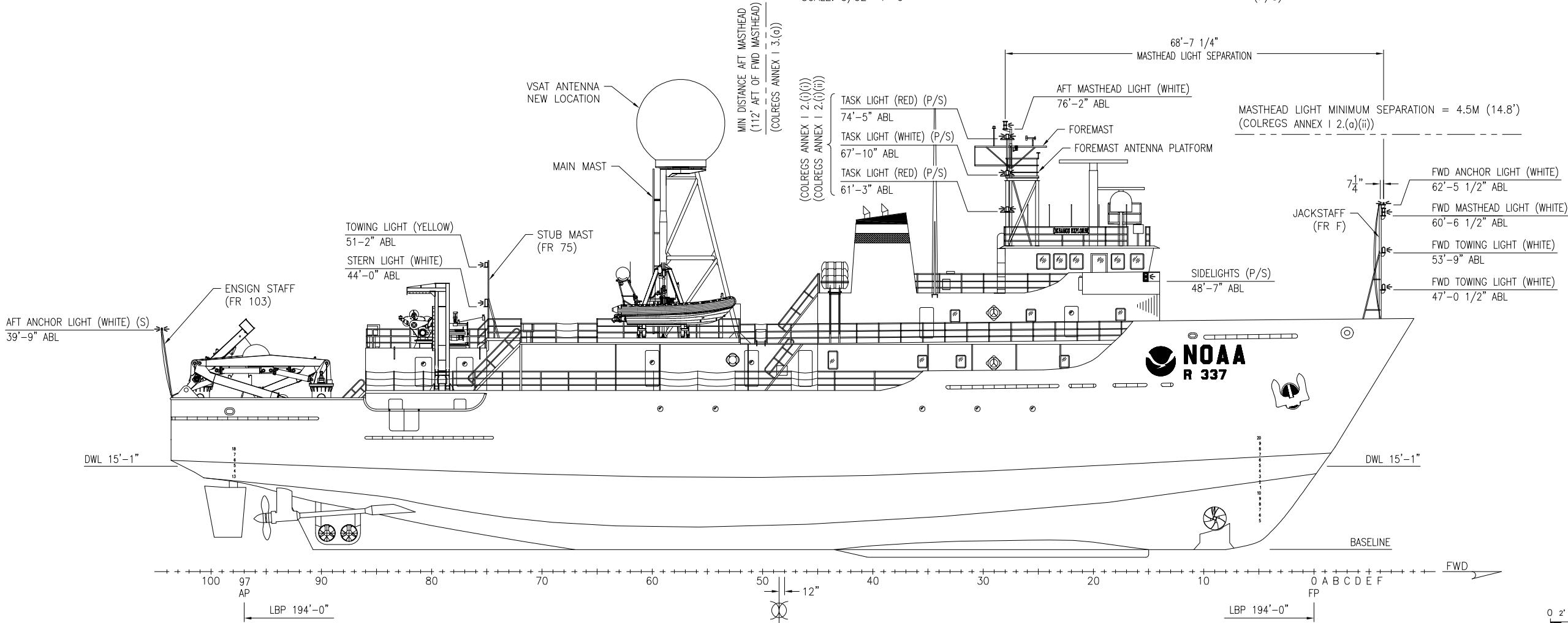
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**PLAN 12-C**TOPSIDE LIGHT ARRANGEMENT
SCALE: 3/32" = 1'-0"**ELEVATION 12-A**OUTBOARD PROFILE
SCALE: 3/32" = 1'-0"**PRELIMINARY**
DATE: 03/26/10

SIZE	CAGE CODE	NOAA DRAWING NUMBER	REV
D	OYLJ5	OE-422C-01	-
SCALE: AS SHOWN	CAD FILENAME: OE-422C-01.dwg	SHT 2 OF 2	

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GENERAL NOTES

1. THE PURPOSE OF THIS DRAWING IS TO SHOW THE INSTALLATION OF THE AFT MASTHEAD LIGHT AND TASK LIGHTS FOUNDATIONS TO ACCOMMODATE MODIFICATIONS TO THE MAIN MAST. EXISTING AFT MASTHEAD LIGHT AND TASK LIGHTS ARE TO BE RELOCATED FROM THEIR CURRENT POSITIONS ON THE MAIN MAST TO THE LOCATIONS SHOWN ON THIS DRAWING. NAVIGATION LIGHTS ELECTRICAL REMOVAL AND REROUTING IS SHOWN ON REFERENCE 4.

2. NUMBERS AND LETTERS IN PARENTHESIS AFTER THE SECTION OR DETAIL TITLE INDICATE THE VIEW OF THE DRAWING FROM WHERE THE SECTION OR DETAIL IS TAKEN.

3. ABBREVIATIONS USED ON THIS DRAWING ARE IN ACCORDANCE WITH ASME Y14.38.

4. TASK LIGHTS ARE MOUNTED P/S ON THE FORWARD MAST PLATFORM TO ENABLE 360° VISIBILITY.

5. SUBSTITUTIONS FOR ANY OF THE ITEMS INDICATED MUST BE APPROVED BY A NOAA REPRESENTATIVE AS HAVING EQUAL SALIENT FEATURES AND QUALITY OF CONSTRUCTION. IN ADDITION, THE PROPOSED SUBSTITUTE MUST BE SHOWN TO BE SUITABLE FOR INTEGRATION INTO THE SYSTEM WITHOUT HAVING A NEGATIVE IMPACT ON THE OVERALL ARRANGEMENT, PERFORMANCE, MAINTENANCE OR ACCESS TO THE SPACE.

6. WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH ABS RULES AND REGULATIONS.

7. TEMPORARY REMOVAL AND REINSTALLATION OR RELOCATION OF INTERFERENCES REQUIRED TO ACCOMPLISH THE WORK INDICATED ON THIS DRAWING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

8. TEMPORARY REMOVAL & REINSTALLATION OF INTERFERENCES NECESSARY TO ACCOMPLISH WORK SHALL BE KEPT TO A MINIMUM.

9. ALL WELDS SHALL BE NEATLY FINISHED WITH ALL SLAG AND SPLATTER REMOVED.

10. SHARP AND RAGGED EDGES OR CORNERS OF STRUCTURE WHICH ARE UNSIGHTLY OR WHICH COULD CAUSE INJURY TO PERSONNEL SHALL BE REMOVED, GROUND SMOOTH OR SNIPED. ANY SPACES OR AREAS WHICH COULD TRAP LIQUIDS, ADEQUATE LIMBERS SHALL BE PROVIDED TO ENSURE EFFECTIVE DRAINAGE.

11. ALL SNIPES AND CHAMFERED EDGES SHALL BE 45 DEGREES.

12. TOP OF PILOTHOUSE HAS NO SHEER & NO CAMBER.

13. FRAME SPACING IS 24 INCHES IN AREAS CONCERNED.

14. ALL COMPLETED STRUCTURAL AREAS OF WORK SHALL BE THOROUGHLY CLEANED, PRIMED AND FINISH COATED TO MATCH EXISTING.

15. THE MANUFACTURER SHALL PROVIDE ALL ITEMS TO SUPPORT THE INSTALLATION OF THE NAVIGATION LIGHTS IN ACCORDANCE WITH PURCHASE SPECIFICATIONS.

16. EXACT LOCATION, NUMBER, AND SIZE OF BOLT HOLES SHALL BE TEMPLATED FROM EQUIPMENT.

LIST OF MATERIALS

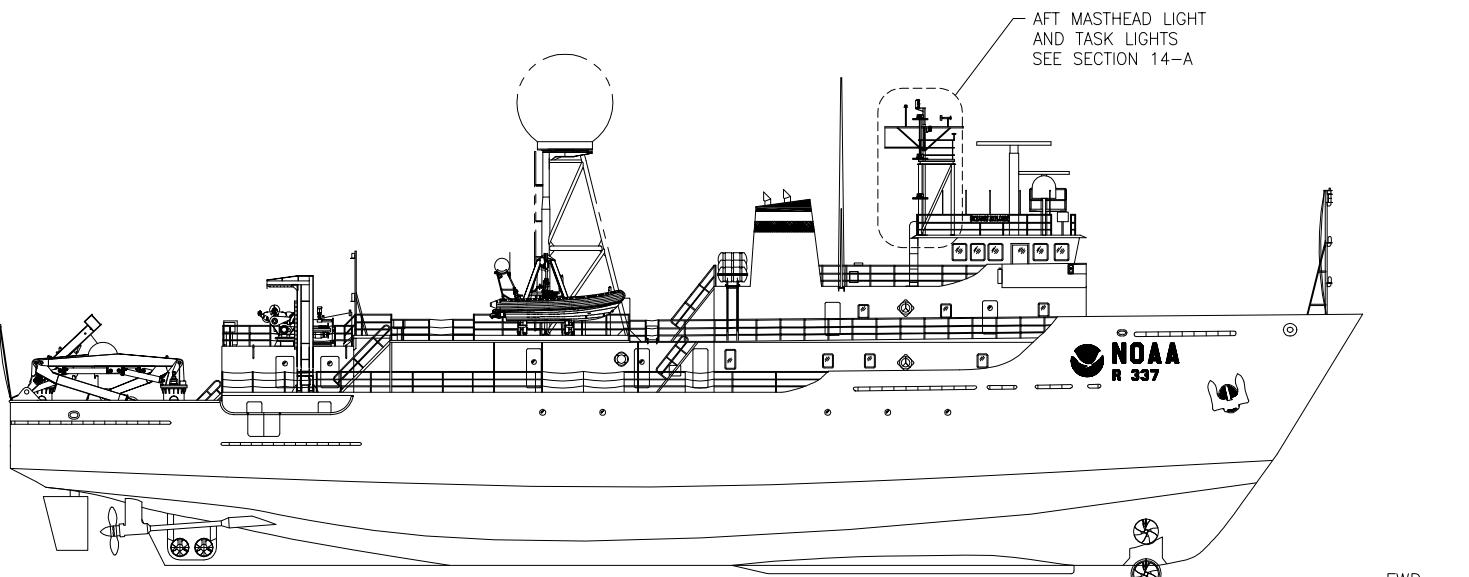
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1	15 SF	PLATE, 10.2#	STEEL	ASTM A-36	
2	16 LF	PIPE, 2 1/2" NPS	STEEL	ASTM A-53	
3	2 LF	PIPE, 3" NPS	STEEL	ASTM A-53	
4	3 LF	PIPE, 3 1/2" NPS	STEEL	ASTM A-53	
5	2 EA	BOLT, HEX HD, 1/2"-13UNC-2A, 4 1/2" LG	SST	COML	
6	2 EA	NUT, SELF LKG, HEX, 1/2"-13UNC-2B	SST	COML	
7	2 EA	WASHER, FLAT, 1/2" DIA	NYLON	COML	

REVISIONS

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REFERENCES

NO	TITLE	DRAWING NO
1	FOREMAST ANTENNA PLATFORM	OE-170-101A
2	ANTENNA ARRANGEMENT, FOREMAST	OE-405-101
3	GENERAL ARRANGEMENT	OE-601-101C
4	NAVIGATION LIGHTING SYSTEM ELEMENTARY WIRING DIAGRAM	OE-422-101B



KEY PLAN

STBD OUTBOARD PROFILE

PRELIMINARY

DATE: 03/26/10

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
OFFICE OF MARINE AND AVIATION OPERATIONS

ART ANDERSON ASSOCIATES 200 PACIFIC AVE, BRIGHTON, MI 44517-1932 (316) 479-5600 FAX(316) 479-5605	NOAA SHIP <i>OKEANOS EXPLORER</i>	NAVIGATION LIGHTS FOUNDATION	
		DSGN	03/22/10
		TAR NO.	J. WALKER
		CONTRACT NO.	AB133M-05-CQ-1044
		CHK	E. SNYDER
		CHK	J. CARLSON
		NOAA DRAWING NUMBER	OE-422C-02
		SIZE	REV
		CAGE CODE	-
		D 0YLJ5	

NOAA APPROVAL CAD FILENAME OE-422C-02.dwg SHT 1 OF 3

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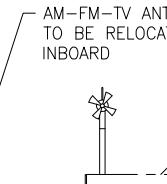
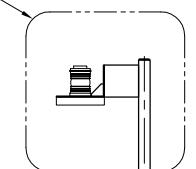
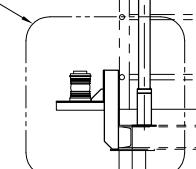
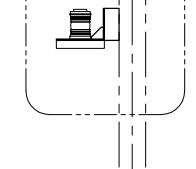
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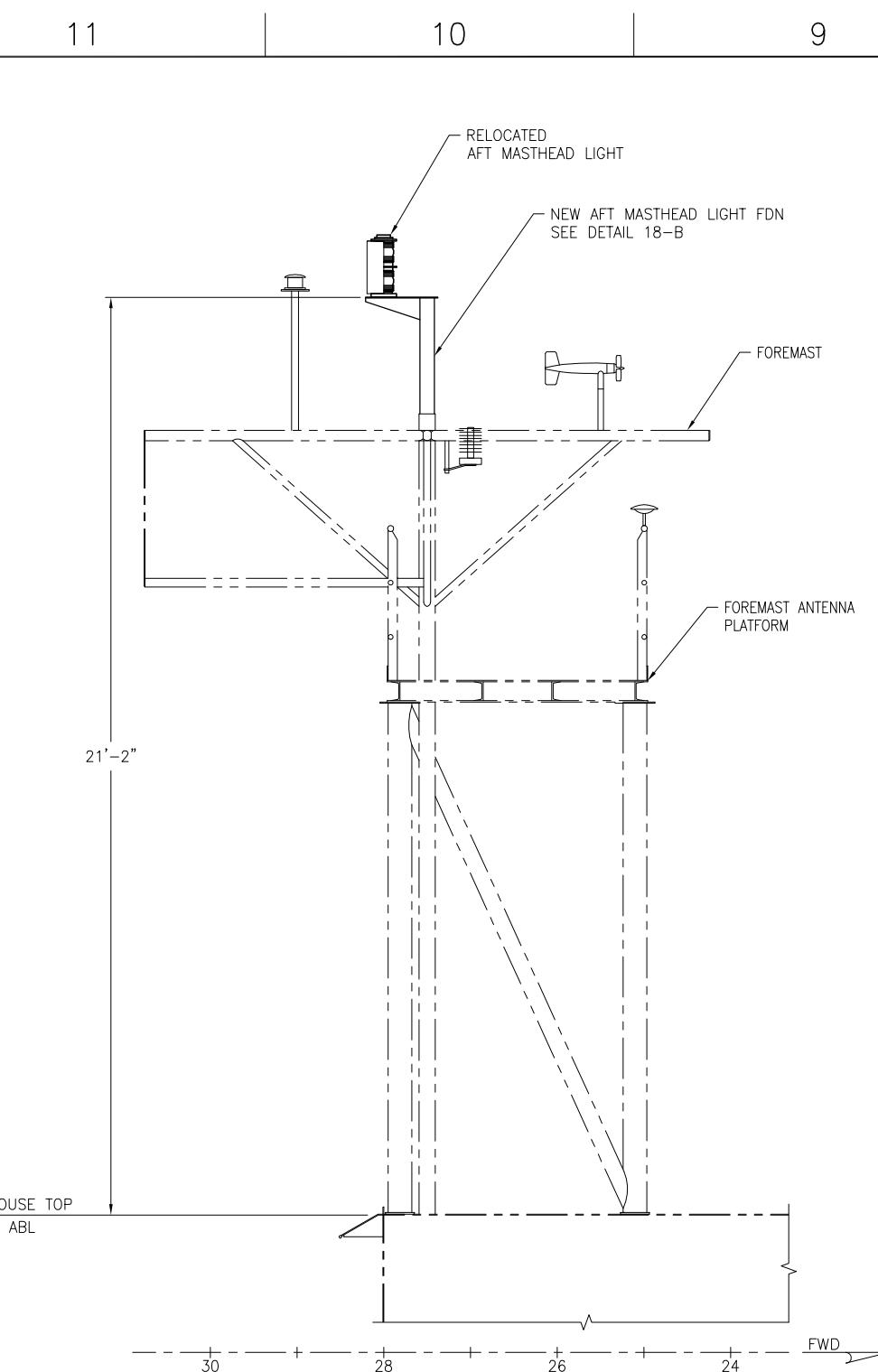
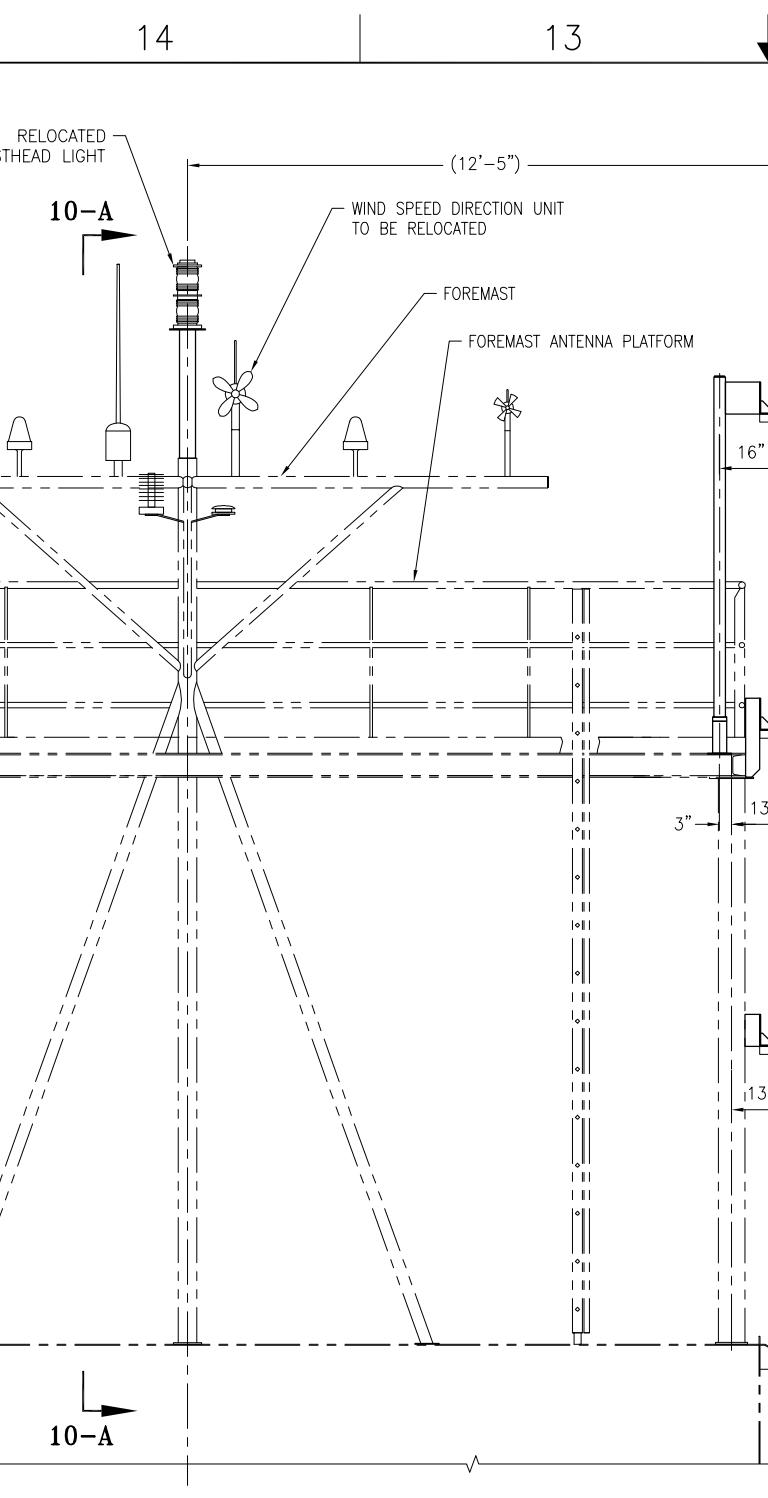
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NEW UPPER TASK
LIGHT FOUNDATION
SEE DETAIL 23-CNEW MIDDLE TASK
LIGHT FOUNDATION
SEE DETAIL 23-BNEW LOWER TASK
LIGHT FOUNDATION
SEE DETAIL 23-AAFT SUPPORT
STANCHION**SECTION 14-A**

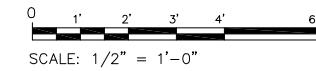
FOREMAST ANTENNA PLATFORM
FR 27, LKG AFT
SCALE: $1/2'' = 1'-0''$

**ELEVATION 10-A (14-A)**

FOREMAST ANTENNA PLATFORM
STBD SIDE, LKG PORT
SCALE: $1/2'' = 1'-0''$

PRELIMINARY

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SCALE: $1/2'' = 1'-0''$

SIZE	CAGE CODE	NOAA DRAWING NUMBER
D	0YLJ5	OE-422C-02
REV -		
SCALE: $1/2'' = 1'-0''$		
CAD FILENAME: OE-422C-02.dwg		
SHT 2 OF 3		

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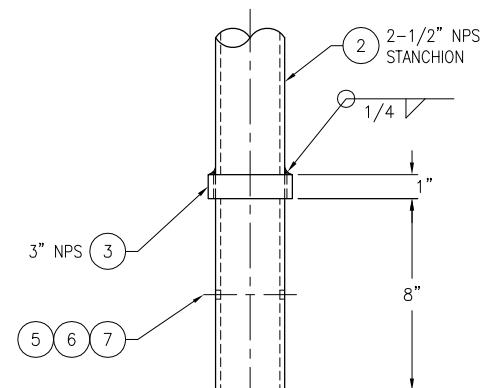
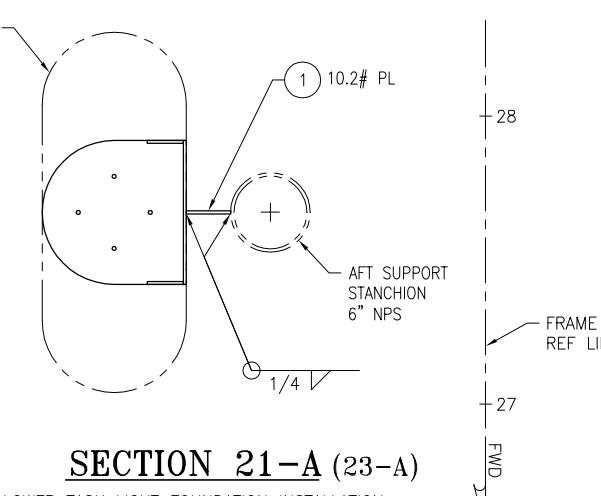
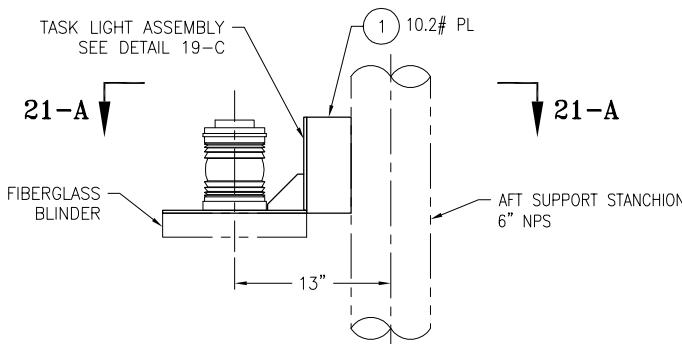
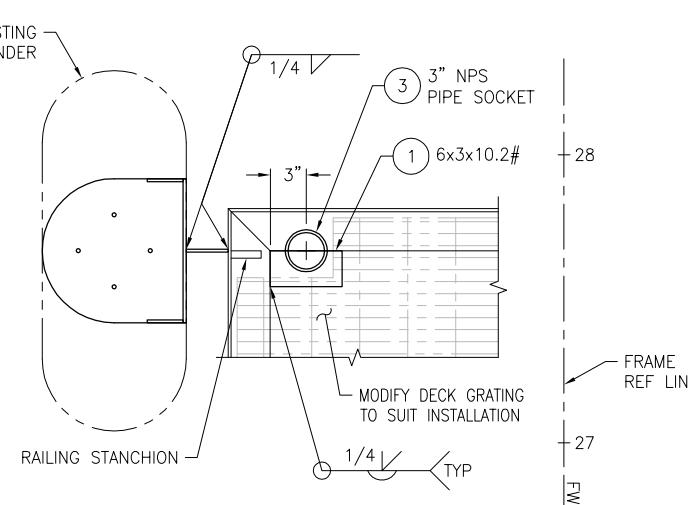
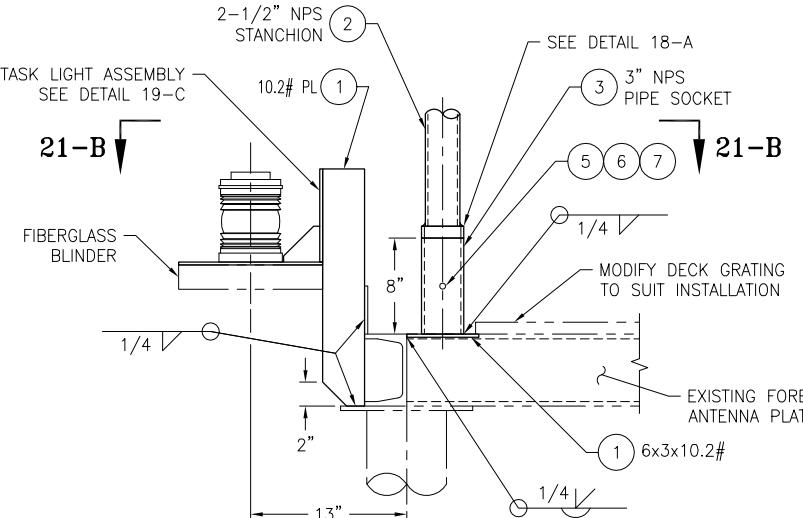
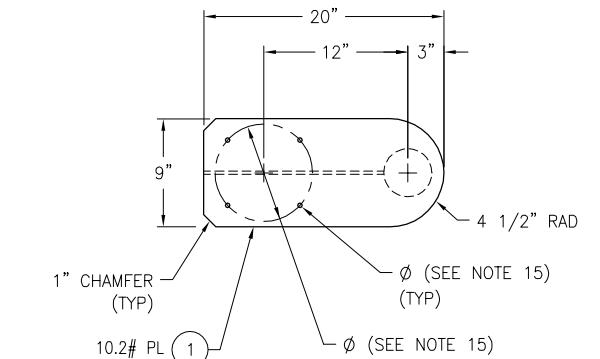
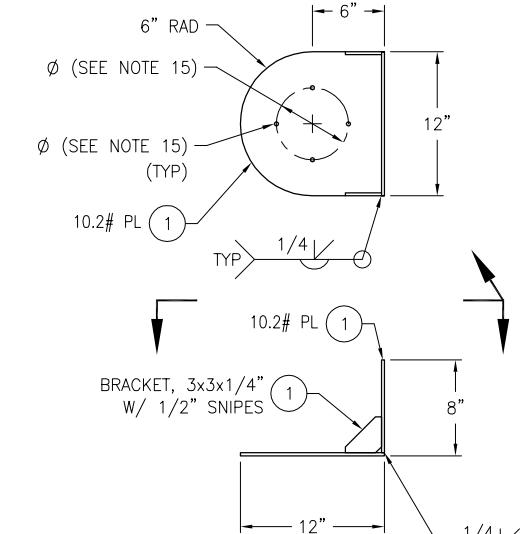
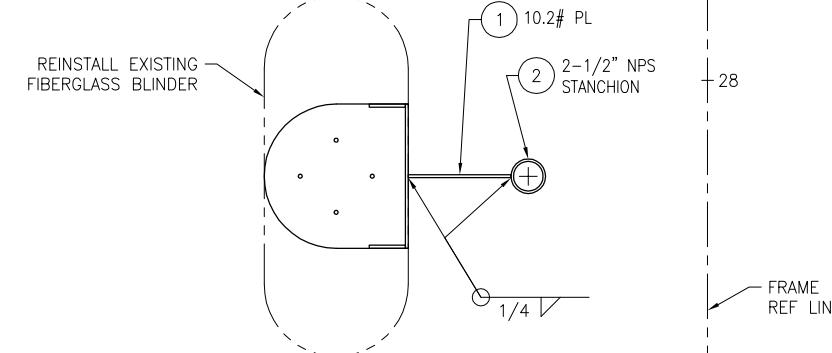
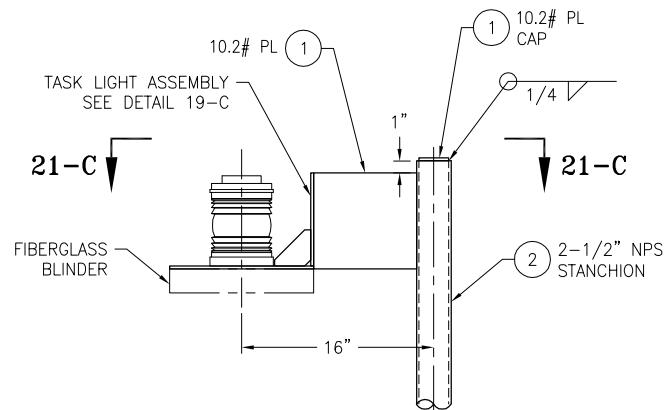
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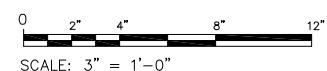
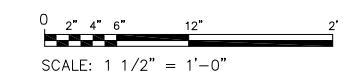
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PRELIMINARY

DATE: 03/26/10



SIZE	CAGE CODE	NOAA DRAWING NUMBER	REV
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SCALE: AS SHOWN CAD FILENAME OE-422C-02.dwg SHT 3 OF 3

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